M-Lab monitoring and event log

Internet Systems Consortium model

- ISC and our context within Internet community

- ISC's network, services, and monitoring goals

- http://status.isc.org/ -- content and availability

M-Lab event overview

- Unique event identifier
- Event category
- Event time period
- Applies to
- Description
- Impact
- References

Event categories

- Data
- Experiment services
- System software
- Server/switch hardware
- Network environment
- Platform services

Sample event

SS-2012-214A
- **Event category**: System Software
- **Time period:**
  - Starts: Aug 1, 2012
  - Duration: indefinite
- **Summary:**
  - All M-Lab servers will receive a system software update to support dual-stack IPv4/IPv6 addressing. At least one IPv6 address will be assigned to every host. DNS records will be updated to include an AAAA record with the new IPv6 address. No effect is expected for experiments that do not have an IPv6 address assigned.
- **Applies to:**
  - M-Lab servers, DNS records
- **Description:**
  - Henceforth, an M-Lab server and experiments running on the server could have two addresses, one IPv4 and the other IPv6. Therefore, analysis scripts interested in aggregate statistics should, when present, account for both interfaces.
  - All servers have two decorated DNS names that include only an IPv4 or IPv6 address:
    - mlab1v4.site01.measurement-lab.org
    - mlab1v6.site01.measurement-lab.org
- **Impact:**
  - This update will not impact regular operation of the server, nor the regular operation of slices without IPv6 addresses assigned. Because the DNS name for the machine includes a AAAA record, connections to some services may change due to some protocols favoring IPv6 over IPv4. Examples include ssh and http clients.
- **References**
  - A complete deployment schedule is here: <link>

Platform monitoring

Event category and monitoring

- **Data**
  - Deduced via the sum of all other components operating within platform norms and the ongoing dialog between M-Lab and the research community.

- **Experiment services**
  - Nagios; CoMon

- **System software**
  - MyOps at PlanetLab Central; Nagios

Platform monitoring

Event category and monitoring

- **Server/switch hardware**
  - SmokePing; Network Element Monitor; Rancid; Nagios

- **Network environment**
  - SmokePing; Network experiments' report

- **Platform services**
  - Nagios; Nagiosstats